

WHAT IS CLAIMED IS:

1. A method for repair of an insulating glass unit having a pair of glass panes and a peripheral spacer having a wall extending between the panes, the panes and spacer defining a between pane space and the insulating glass unit being encased in a peripheral frame, the method
5 comprising the steps of:

a. drilling a bore through the frame to expose an outer surface of the spacer wall;
b. drilling a hole through the spacer wall to enable air or other gas to enter the between pane space to equalize the pressure across each pane and enable the panes to regain substantial parallelism;

10 c. sealing the hole in the spacer wall; and
d. sealing the bore in the frame.

15 2. The method of claim 1 wherein the step of sealing the hole in the spacer wall includes the step of inserting a rivet through the bore in the frame.

3. The method of claim 2 wherein the rivet includes a sealant, the method including the step of deforming the rivet within the hole in the spacer wall so that the sealant seals the rivet to the spacer wall to seal the hole with a gas-tight seal.

20 4. The method of claim 1 wherein the step of sealing the hole in the spacer wall includes the step of inserting a screw through the bore in the frame.

5. The method of claim 1 wherein the step of sealing the hole in the spacer wall includes the steps of;

providing a rivet and a gasket; and

inserting the rivet through an opening in the gasket and through the hole in the
5 spacer wall so that the gasket is interposed between a flange of the rivet and the spacer wall.

6. The method of claim 5, wherein the gasket comprises an elastometric material.

7. The method of claim 1 further including the step of providing a drill bit for
10 drilling through the frame and the spacer wall, the drill bit having a stop for preventing it from
extending within the window unit from the edge of the frame by more than a predetermined
distance.

8. The method of claim 7, wherein the drill bit includes a first drill bit portion having
15 a length configured to extend to but not beyond the exterior surface of the spacer wall, and a
second drill bit portion of smaller diameter than the first drill bit portion and extending distally of
the first portion.

9. The method of claim 7, further including the step drilling a bore with the drill bit
20 from the edge of the frame inwardly as far as the stop allows, the first drill bit portion being
received within the frame only, and the second drill bit portion extending through the wall of the
spacer.

10. The method of claim 1 wherein the spacer is generally tubular so as to provide spaced outer and inner walls, and wherein the hole through the spacer wall is formed only through the outer wall.

5 11. A kit for repair of an insulating glass unit having a pair of glass panes and a peripheral spacer having a wall extending between the panes, the panes and spacer defining a between pane space and the glass unit being encased in a peripheral frame, the kit comprising:

a. a drill bit assembly for drilling a hole through the frame and spacer wall; and

10 b. a rivet receivable within the hole drilled in the spacer wall.

12. The kit of claim 11, wherein the rivet includes a deformable sealant coating capable of sealing the rivet to the spacer wall.

15 13. The kit of claim 11, further including a gasket.

14. The kit of claim 13, wherein the gasket comprises an elastometric material.

20 15. The kit of claim 11, wherein the drill bit has a first drill bit portion having a second diameter that is similar to a body diameter of a body portion of the rivet, and a second drill bit portion having a first diameter that is similar to a flange diameter of a flange of the rivet.

16. The kit of claim 11, further including a riveting fixture.

17. The kit of claim 16, wherein the riveting fixture has a diameter that is similar to a flange diameter of a flange of the rivet.

5 18. The kit of claim 11 wherein the drill bit assembly comprises a stop preventing it from extending within the window unit from the edge of the frame by more than a predetermined distance, a first drill bit portion having a length such that the distal end of the first portion extends to but not beyond the exterior surface of the spacer wall, and a second drill bit portion of smaller diameter than the first drill bit portion and extending distally of the first portion for
10 drilling a hole in the spacer.

19. The kit of claim 11 further including a drill guide receivable against the frame of a window unit and having a bore positioned to guide the drill bit through the frame to intersect the spacer.
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20. The kit of claim 11, wherein the rivet includes a stem that is dimensioned so that the stem extends beyond the peripheral frame when the rivet is received in the hole drilled in the spacer wall.

20 21. The kit of claim 11, wherein the rivet includes a body having an end wall fixed to a generally cylindrical side wall.

22. A repaired insulating glass unit, comprising:

a pair of glass panes and a peripheral spacer having a wall extending between the
panes;

the panes and the spacer defining a between pane space;

the wall of the peripheral spacer defining a hole; and

5 a rivet body sealingly disposed in the hole defined by the wall of the peripheral
spacer.

23. The repaired insulating glass unit of claim 22, wherein the rivet includes a body
having an end wall fixed to a generally cylindrical side wall.

24. The repaired insulating glass unit of claim 22, wherein the rivet includes a body
having an end wall fixed to a generally cylindrical side wall; and

the walls of the rivet body are dimensioned to extend completely across the hole defined
by the wall of the peripheral spacer.